



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------|------------------|
| 10/512,050 | 10/21/2004 | Kazutaka Hara | 042869 | 8423 |
| 38834 7590 04/06/2007 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036 | | | EXAMINER DUONG, TAI V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 04/06/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/512,050

Applicant(s) *T/#*

HARA ET AL.

Examiner

Tai Duong

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/21/04; 6/2/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 3, the phrase “between at least two layers, included *in* a reflection polarizer (a)” is confusing. Is the phrase intended to mean “between at least two reflection polarizers (a)”? It is unclear which elements (the polarization element (A), the retardation layer (b), the at least two layers or the reflection polarizer (a)) have respective selective reflection wavelength bands of polarized light superimposed on each other to conduct collimation for a *diffusion* (diffused) light source. In line 7 of claim 1, it is unclear how *one* polarizer can be disposed on *both* sides of the liquid crystal cell. In claim 2, line 3, does the reflection polarizer (a) comprise at least two layers? In claims 3 (lines 6, 7), 4 (lines 6, 13, 15), 5 (lines 7, 9, 12), 6 (lines 7, 9, 12), 13 (lines 3, 6), and 15 (line 5), the *parentheses* are confusing because it is unclear whether the information within the parentheses is the limitation or not. In claims 4 and 5, last line, do “the respective slow axes thereof” refer to the slow axes of the layer (b2) on the incidence side and the layer (b2) on the emission side? In claim 6, lines 8 and 10, to which layers the layer on the incidence side and the layer on the emission side refer? In claims 7-11, the recited feature “the retardation layer (b1)” lacks antecedent basis. In claim 17, to which layers the each of *layers* refer? The remaining claims are also rejected since they depend on the indefinite claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 10, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-321025 (JP'025) in view of JP 2002-258048 (JP'048) both cited by Applicant.

In so far as understood, the JP'025 discloses in Fig. 6 a liquid crystal display (LCD) comprising a backlight system (1-3 and 51-54) containing a polarization element 1 obtained by disposing a retardation layer (12, 14) between at least two reflection polarizers (11, 13, 15, 16), a liquid crystal cell 61, polarizing plates (4, 62) disposed on both sides of the liquid crystal cell; and a viewing angle magnifying layer 63 disposed on the viewer side of the liquid crystal cell to diffuse transmitted light. Thus, the only difference between the LCD of JP'025 and that of the instant claim is the reflection polarizers having respective selective reflection wavelength bands of polarized light superimposed on each other to conduct collimation for a diffused light source. The JP'048 discloses that it was known to employ reflection polarizers having respective selective reflection wavelength bands of polarized light superimposed on each other to conduct collimation for a diffused light source (abstract, paragraphs 0001, 0004, 0007, 0019, 0036, 0037, 0041, 0044). Thus, it would have been obvious to a person of ordinary skill in the art in view of JP'048 to employ in the LCD of JP'025 reflection polarizers having respective selective reflection wavelength bands of polarized light

superimposed on each other to conduct collimation for a diffused light source for obtaining a LCD device with good luminance.

Claims 3-9 and 11-15 and would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 3-9 and 11 are allowed over the prior art because none of the prior art discloses or suggests a LCD having structure as recited in claim 1 in combination with the particular structures of the reflection polarizer and the retardation layer as recited in claims 3-9 and 11. Claims 12-15 are also allowed since they depend on claims 3 and 4.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



TOAN TON
PRIMARY PATENT EXAMINER

JD
TVD

04/07